A.D. 1831 . . . . . N° 6103.

SPECIFICATION

OF

JAMES SLATER.

FURNACES OF STEAM BOILERS.

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Furnaces of Steam Boilers.

SLATER'S SPECIFICATION.

TO ALL TO WHOM THESE PRESENTS SHALL COME, I, JAMES SLATER, of Salford, in the County of Lancaster, Bleacher, send greeting.

WHEREAS His most Excellent Majesty King William the Fourth, did, by His Letters Patent, under the Great Seal of Great Britain, bearing date at Westminster, the Second day of April, One thousand eight hundred and thirty-one, in the first year of His reign, give and grant unto me, the said James Slater, my executors, administrators, and assigns, His especial licence, sole privilege and authority, that I, the said James Slater, my executors, administrators, and assigns, during the term therein mentioned, should and lawfully might make, use, exercise, and vend, within England, Wales, and the Town of Berwick-upon-Tweed, my Invention of "CERTAIN IMPROVEMENTS IN THE METHOD OF GENERATING STEAM OR VAPOUR, APPLICABLE AS A MOVING POWER AND TO ARTS AND MANUFACTURES, AND ALSO FOR IMPROVEMENTS IN VESSELS OR MACHINERY EMPLOYED FOR THAT PURPOSE;" in which said Letters Patent there is contained a proviso, that if I, the said James Slater, should not particularly describe and ascertain the nature of my said Invention, and in what manner the same is to be performed, by an instrument in writing under my hand and seal, and to cause the same to be inrolled in His Majesty's High Court of Chancery within six calendar months then next and immediately after the date of the said Letters Patent, then the said Letters Patent, and all liberties and advantages whatsoever thereby granted, should utterly cease, determine, and become void, as in and by the same (reference being thereunto had) will more fully and at large appear.

NOW KNOW YE, that in compliance with the said proviso, I, the said James Slater, do hereby declare that my said Invention is described and ascertained in manner following, that is to say :—

Slater's Improvements in the Method of Generating Steam, &c.

My said improvements in the method of generating steam or vapour, (which steam or vapour is applicable as a moving power and to arts and manufactures,) consists in the means herein-after described for causing that smoke, heated gas, and unconsumed air which proceeds from the flues of the furnaces, by which steam boilers are heated (and which smoke, heated gas, and unconsumed air, after quitting contact with the external surface of the boiler, is usually allowed to pass up the high chimney and to dissipate in the open air all the heat which it carries with it), to communicate a portion of the heat which it retains after quitting contact with the external surface of the steam boiler to a current of fresh air, which after being heated or warmed by such communication is conducted into the ash pit beneath the fire grate of the furnace, in order that it may rise up between the bars of the fire grate and maintain the combustion of the burning fuel upon that fire grate, whereby, according to this part of my improvements, the combustion will be maintained by a current of warm or heated air (instead of cold air as usual), the heat or warmth being given to the said air (whereby the combustion is maintained), by abstracting and saving a portion of the heat which is usually carried off in waste along with the current of smoke, heated gas, and unconsumed air, which passes up the chimney; and further, a regulated portion of the said current of heated or warmed air is to be admitted into the furnace or fire-place above the fire-grate, in order to mix with the smoke which is evolved by the burning fuel, in such quantity, and at such parts of the furnace, and at such times, as will best facilitate the complete combustion of the said smoke in the same manner and for the same purpose as the air of the atmosphere in its ordinary state has been heretofore admitted into furnaces for burning smoke, except that instead of cold air, this part of my improvements is to admit air which has been heated or warmed as aforesaid, by abstracting and saving a portion of the heat which is usually wasted in the current which escapes from the chimney. And further, my said improvements in vessels or machinery employed for the purpose of generating steam or vapour (which steam or vapour is applicable as a moving power and to arts and manufactures), consists in the following new additions to the flues, wherewith steam boilers are usually provided, which additions are suitably arranged for the purpose before explained of communicating to the current of fresh air, whereby the combustion of the burning fuel is to be maintained, a portion of the heat which is usually carried off in waste along with the current of smoke, heated gas, and unconsumed air which escapes up the chimney. The said new additions are a series of long passages for the conveyance of the smoke, heated gas, and unconsumed air, from the time that the same quits contact with the external surface of the boiler, which

for distinction I will call smoke passages; they are made of thin iron plate, and are disposed in parallel courses, with intervals between them, which intervals form passages for the conveyance of the current of air, whereby the combustion of the burning fuel is to be maintained. The said air passages and smoke passages are regularly interspaced (one set of passages between the other set), in order that the current of smoke, heated gas, and unconsumed air, as soon as it quits contact with the external heating surface of the boiler, and has ceased to give heat to the water (or to the steam) therein contained, may be split and divided into several parallel streams, in order to pass along the smoke passages aforesaid; and in so passing, the said current of smoke communicates the superabundant heat which it contains to the current of air which is passing along the air passages aforesaid, which air disposed alternately amongst the smoke passages, one set of passages being regularly interspaced between the other set of pasages, in order that the currents of smoke and of air may be both subdivided into small streams, and that those small streams may be so interposed one amongst the other as will (without allowing of any actual intermixture of the smoke with the air) cause the redundant heat of the smoke to pass through the thin iron plate whereof the passages are composed (and whereby the smoke is kept from actually mixing with the air), so as to cool the smoke which is passing through the smoke passages, and give warmth or heat to the air which is passing through the air passages; and the said cooling of the smoke and heating of the air is rendered very complete by causing the currents of air to move along the air passages in a contrary direction to that in which the currents of smoke move along the smoke passages; for by thus reversing the directions of the two currents, the fresh air is taken from the air of the atmosphere into the air passages at the further end of the parallel courses of interspaced smoke and air passages, which end is most remote from the furnace and from the boiler, and the fresh air so taken in is qualified by its coldness to absorb some remaining heat from the current of smoke, gas, and unconsumed air which is flowing through those remote ends of the smoke passages, although the said current in the smoke passages, whilst flowing along the earlier parts of the said passages, has previously communicated the greater part of its superabundant heat to preceeding portions of the current of air, and although the smoke has become cooled by such communication of heat, as the air which is thus taken in at the ends of the air passages flows along the same in its way towards the furnace, it absorbs more and more heat from the smoke in the smoke passages, and becomes more and more heated thereby; but nevertheless it continues to be qualified to absorb still more heat from the smoke, heated gas, and unconsumed air, because as the air advances

along the air passages it comes opposite to those parts of the smoke passages which are nearer to the furnace, and through which parts hotter smoke is flowing. The said arrangement of the interspaced smoke passages and air passages to conduct currents of smoke and air one amongst the other with motion in contrary directions, in order that the air may absorb heat from the smoke, is on the same system as is commonly practiced in what are called French air stoves, for heating air to warm halls and staircases of houses; and part of my said improvements in vessels and machinery for generating steam or vapour consists in the aforesaid application and adaptation of that system of smoke passages and air passages, for the purpose of warming or heating the air, wherewith the combustion of the fuel is to be maintained in the furnaces of steam boilers. The warmth or heat given to the air being derived, as before mentioned, from that heat which is usually carried off in waste along with the current of smoke, heated gas, and unconsumed air which passes up the chimney, and in lieu of a high chimney, I employ a revolving fanner turned by machinery to produce an artifical draft or current of air, because by abstracting heat, as aforesaid, from the current of smoke, gas, and unconsumed air, the same will be too much cooled to enable it to ascend in a high chimney with that rapidity which will create a sufficiently rapid current or draft of smoke, gas, or unconsumed air through the aforesaid smoke passages and through the ordinary flues of the boiler, and also a corresponding current of fresh (but warmed or heated) air through the burning fuel on the fire grate, and through the aforesaid air passages. The said revolving fanner may be constructed in a similar manner to those commonly used for blowing air, for ventilating, or for melting furnaces, and which have been in some instances applied to produce a draft for the furnaces of steam boilers, being turned rapidly round by the power of mill work or by the steam engine, and so applied and placed at the ends or terminations of the smoke passages as to draw out the smoke, gas, or unconsumed air therefrom, and thereby cause a rapid current to pass through those passages and through the flues of the steam boiler, and consequently to draw a current of fresh (but warmed or heated) air through the burning fuel on the fire grate and through the air passages aforesaid. Note.—The ash pit or space beneath the fire grate must be inclosed on all sides to cut off the communication with the open air, and the warmed or heated air must be brought to the ash pit through a suitable trunk or flue from the aforesaid air passages at that end thereof which is farthest from the entrance for the fresh air, but which end is the commencement of the smoke passages, where they split and divide off from the end of the ordinary flue of the steam boiler. The several air passages are united at the said end into one passage

or trunk, which is to convey the warmed or heated air from them into the enclosed ash pit, as aforesaid, beneath the fire grate. The furnace or space wherein the fire is contained is enclosed on all sides, and has a fire door in front, which shuts close in the usual manner, and which can be opened when required to give access to the fire; but in order to avoid the labour of throwing on coals and interruption to the draft by opening the door, it will be best to throw on coals by machinery, consisting of two revolving fanners, on Mr. John Stanley's patent plan, which is now very commonly practised and is well known. And as to the admission of a portion of the heated or warmed air into the furnace above the fire grate, as before stated, for the purpose of burning the smoke, I introduce the same partly through a narrow cleft, which extends horizontally all across the width of the furnace immediately over the fire door; so as to throw a horizontal sheet of warmed or heated air over the whole surface of the fire, in the same manner as has been heretofore done with cold air, in order that it may mix with the smoke which is evolved from the burning fuel, and supply oxygen for the combustion of that smoke. And whereas that combustion will not take place unless a sufficiently high temperature is maintained in that part of the furnace where the mixture of the air and smoke is effected, the quantity of air so admitted must not be so great as to cool and lower down the temperature of the mixture of smoke and air below that temperature at which the combustion thereof will take place; but according to my improvements, the air being warmed or heated before it is admitted, instead of being cold, as heretofore practised, a greater quantity may be admitted without cooling the mixture of air and smoke too much, and a more prompt combustion of the smoke may therefore be obtained; and because the whole quantity of air requisite to burn all the smoke cannot in all cases be admitted at the said narrow cleft over the fire door, I introduce a further portion through another cleft or opening, which extends across the fire bridge, and which discharges the warmed or heated air in an ascending sheet (in the same manner as has heretofore done with cold air), in order that it may mix with the current of smoke which is passing over the top of the fire bridge, and complete the burning of all the smoke which may have escaped combustion from the admixture of the air that is admitted over the fire door, as above mentioned; and by regulating the admission of the warmed or heated air through the two apertures, as aforesaid, the smoke may be consumed with more certainty and advantage than has been heretofore done by admitting cold air in a similar manner, because an abundant quantity of the warmed or heated air may be admitted, according to my improvement, to ensure the complete burning of the smoke, without cooling and reducing the temperature within

the furnace too low for the combustion to take place; but on the contrary, that cooling and lowering of the temperature within the furnace which results from admitting an ample supply of warmed or heated air above the fire grate (in order to ensure the complete burning of all the smoke) is beneficial in moderating the intensity of the heat which strikes against the metal of the boiler immediately over the furnace; but such a supply of warmed or heated air will not lower the temperature within the furnace too much to impede or prevent the complete combustion of the smoke (as an equal supply of cold air would do), and the flame arising from that combustion acts beneath the boiler in the flue thereof beyond the fire bridge with great effect to produce steam; and hence, although there will be a less intense heat in the furnace by virtue of my improvement, of admitting warmed or heated air therein, there will be much more heat in the flue beyond the fire bridge, so as to increase the useful effect of the fuel by burning the smoke arising from it, which has not been the case in the mode hitherto practised of admitting cold air; and in addition to the revolving fanner, before mentioned, for drawing a current through the smoke passages, another such revolving fanner may be applied at the entrance of the air passages in order to assist the draft, by forcing the cold atmospheric air to enter into and advance along the said passages; or in the case of high pressure engines, which discharge their steam into the open air after it has operated on the piston, the said steam may be blown through a small spout in a vertical jet with a sudden blast up the centre of a low chimney pipe, in order to cause a draft therein, in the manner now generally practised in locomotive engines for quick travelling on railways, and the lower end of that chimney pipe communicating with the smoke passages will cause a current through them; and if such current is not sufficient to produce the requisite draft through the fire and the air passages, a revolving fanner may be applied in addition to force air, as aforesaid, into the commencements of the air passages; or in lieu of revolving fanners, any other description of blowing machinery may be used which is suitable for blowing furnaces. And for the more complete explanation of the manner of performing my said Invention I have hereunto annexed two Sheets of Drawings, which represent a boiler for generating steam or vapour, constructed with an internal furnace and fluess, and containing the additional parts, to cause it to operate according to my improvements.

Figure 1, Sheet I., is a vertical longitudinal section through the whole length of the boiler; Figure 2, a horizontal section of the same boiler, taking through the internal furnace and flues; Figures 3, 4, and 5, are vertical transverse sections taken across the same boiler at different parts of the length

thereof, namely, Figure 3, across the furnace and fire grate; Figure 4, across the internal flues, and the smoke and air passages near to the middle of the length of the boiler; and Figure 5 is taken across the air and smoke passages looking towards the furnace. A, A, B, B, C, C, is the outside of the boiler; D, D, F, F, is the internal furnace, contained within the lower part of the boiler; E, E, is the fire grate, dividing the interior of the furnace into two parts, namely, an under part F, F, for the ash pit, and an upper part D, D, for the fire-place; K, K, is the fire bridge at the far end of the grate; and L, an inverted fire bridge beyond the common bridge; both are hollow to receive water within them. G, G, are the internal flues, extending five times along the length of that part of the boiler which is beyond the furnace part, as is shewn in Figure 2. The flues join to the furnace at one end, and the opposite end joins to an internal chamber H, from which a chimney pipe I passes horizontally through to the outside of the boiler, and is connected with the base of a high chimney, to cause a draft in the usual manner, in order to get up the steam when the boiler is first set to work, and when the revolving fanner is out of action, the operation of the boiler being then the same as that of other boilers in common use, and all my improvements being out of action. Every part of the internal furnace and flues is surrounded by the water contained in the boiler in the same manner as is commonly practised for boilers on board steam vessels. L, L, is Stanley's fuel feeding apparatus for throwing the coals on the fire grate E, E. It operates by means of two revolving fanners fixed on the lower ends of two upright axes, which are turned rapidly round by the machinery. The coals are put into a hopper, which has a pair of revolving rollers at the lower part of it, to crush the large lumps of coal, and reduce them small enough for the revolving fanners (on which the coals fall after passing through the rollers) to throw the coals forwards on to the fire grate. The construction of this apparatus is so well known as to require no farther description. In order to preserve the bars of the fire grate E, E, from burning by the heat of the fire, hollow iron tubes may be used for fire bars, and the water with which the boiler is fed being forced to run through the hollow tubes, will preserve them from the effects of the heat, and the water will become heated before it enters the boiler. M is the feeding cock or valve, which is opened or shut, as is required, by a wire from the float N within the boiler, according to the height at which the water stands therein. The water is forced by the feeding pump of the steam engine through the cock M, whenever the same is opened (by the subsidence of the float N), and thence the water is conducted by the pipe O to the hollow bars of the fire grate. Note.—When the cock M is shut by the using of the float N

(and the passage of the water through the pipe O is intercepted), the water, which continues to be forced by the feeding pump, makes its escape from the pipe leading from the pump to the cock M through a loaded safety valve, which the water lifts up whenever it is too strongly forced. The construction of the fire grate with hollow bars for water is explained by the Drawing, Sheet II., wherein Figure 6 is a horizontal plan; and Figure 7, a longitudinal section; and Figure 8, a transverse section, drawn to a larger scale than Sheet I. The pipe O, Figure I, joins to a projecting branch P of a square hollow trunk Q, which extends horizontally across the furnace, and forms the front end of the fire grate; and R is a similar trunk, which forms the opposite or farther end thereof. S, S, T, T, V, V, are the fire bars, formed by hollow tubes of wrought iron, welded in the manner of gun barrells or gas pipes, and screwed at their ends, to join them to the two square trunks R and Q. These trunks have partitions across them internally, to compel the water to flow through the bars in pairs, backwards and forwards alternately, by a zig-zag course, namely, first backwards from Q to R by the bars S, S, and then returning through the bars T, T, from R to Q; then backwards again from Q to R by the next pair V, V, and so on, until the last pair of bars, which join to the trunk R near to the opposite corner of the fire grate, to the entrance branch P. The branch X joins to the fire bridge K at the lowest part thereof, in order to introduce the water into the boiler at that part; but by flowing through the hollow bars the water becomes considerably heated, and in order to prevent the formation of steam within the hollow bars, (which steam, by displacing the water therefrom, might allow them to get hot,) a nozzle or valve box may be applied in place of the branch X, with a valve therein, opening towards the boiler, in the direction in which the water is required to flow through the branch X; and the stem of the said valve, coming through a stuffing box to the outside within the ash pit, is to be loaded with a weight, which will tend to close the valve, and oppose the flow of the water through the same, and consequently through the hollow bars of the fire grate, until the pressure of the water is equal to lifting the said loaded valve. The said valve being properly loaded, will retain the water which is flowing through the hollow bars under such a degree of compressure therein as will restrain the same from expanding into steam, although the water so retained may acquire a higher temperature than that of the water in the boiler; but when the said heated water enters into the boiler and mixes with the water therein, it will communicate thereto the extra heat which it has brought from the fire bars, and by so bringing away heat from the bars they will be preserved from injury. Note.—The said loaded valve may be placed on the orifice of the branch X withinside of the boiler,

if there is a convenient space for its reception, and then a stuffing box for the stem of the valve will be unnecessary. Y, Figure 1 of Sheet I., is the narrow cleft or opening over the fire door, where a portion of air is admitted into the fire-place in order to burn the smoke, as before mentioned; that air is brought by a horizontal square trunk which extends horizontally across the front end of the boiler, and the admission of the air into that pipe is regulated by a register within the pipe in the usual manner. The fire bridge K, K, is made hollow within to introduce a current of air, which enters at the end of the fire bridge through the side of the boiler, and the air is allowed to rise up through an opening Z at the top of the fire bridge, in order to complete the burning of the smoke, as before mentioned. The quantity of air which is allowed so to pass up over the fire bridge is regulated by a turning valve W, situated in the hollow within the fire bridge K, K. *a*, *a*, is the revolving fanner, by which a current is produced through the flues instead of a high chimney, that is, after the steam is got up, and the engine is to set to work; for previously to that the chimney pipe I, and a high chimney is used, as already mentioned; but when the fanner *a*, *a*, is put in motion by the machinery, (which also turns the fuel feeding apparatus L, L,) the communication between the chimney pipe I and the high chimney is shut, by letting down a sluice damper of the ordinary construction, and then my improvements are put into action. In Figures 1, 4, and 5, 1,1, 2,2, is an iron case, containing the system of smoke passages and air passages, before mentioned; the case is represented in the Drawing as placed at the top of one end of the boiler over the flues G, G, and as if it were fitted into a space left for it at the top part of the far end of the boiler, in order that it may occupy the least possible room; but there is no necessity for placing the case containing the smoke and air passages in that particular position; and if there is room in the situation where the boiler is to be placed, it will be better to turn the case round, end for end, and place it beyond the end of the boiler, the top of which may then be made to rise to its full height nearly all its length as usual, in order to receive the steam which is generated from the water. The smoke, heated gas, and unconsumed air which has passed through all the course of the internal flues G, G, which are immersed in the water of the boiler, and arrived at the chamber H, enters from the top of that chamber into openings through the bottom of the case 1,1, 2,2, at the far end of that bottom, as is shewn at 5,5,5, Figure 5, where fifteen such openings are represented. They convey the smoke upwards into the ends of as many parallel smoke passages 7, 7, which are represented white in the Drawing; they are formed by thirty thin plates of iron, placed edgeways upwards, parallel to each other, and extend-

ing all the length of the case 2,2, as is shewn in Figure 1. The said vertical plates (including the two outside plates of the case 1,1, 2,2,) also form sixteen air passages 8, 8, coloured pink, in the intervals between the fifteen smoke passages 7,7, which air passages also extend all the length of the case 2,2, side by side of the smoke passages, and interspaced between them. The said vertical plates form the separations between the smoke passages and the air passages, and by the thinness of the metal they allow the heat to pass from the currents which are passing upwards through the smoke passages to those which are passing downwards through the air passages, without allowing the smoke to mix with the air. The said vertical planes which thus form the separations between the two sorts of passages are about eleven inches broad and eight and a half feet long; they are bended along one of their margins, so that their transverse sections when finished will be as represented in Figure 9, Sheet II. The broad part *e* forms the upright partition between the adjacent passages; the bended edge *f* forms the top of the passage as well as the bottom of the passage next above. The small rebate into which the bended angle is formed at *k* receives a corresponding bended rebate at the extreme edge *l* of the plate, and when a row of partition plates are put together side by side to form one tier or story of passages, the rebates *k* and *l* leave a row of parallel grooves over the joints between the plates extending all the length of the case, and those grooves receive the lower edges of a set of similar partition plates to form another story or tier of passages over the others. The passages when the plates are put together are nine inches and a half high by one inch wide. The junctions between the edges of all the plates are filled with fire clay or other suitable cement. In this way the said partition plates are put together, side by side, and one set above another, until six stories in height of air passages and interspaced smoke passages are completed. At one end of each horizontal range of passages, the passages communicate by openings at the top of them with the passages immediately above them, and at the opposite ends of the same horizontal range the same passages communicate by other openings with the passages immediately below them, and thereby each series of smoke passages forms an ascending zig-zag course, 14, 15, 16, 17, 18, 19, Figure 1, of passages rising one above the other, as is shewn by the arrows in that Figure. The upper ends of all the smoke passages join at 20 into one cross passage, which unites them, and which extends with two bends to join to the central apertures of the cylindrical case for the revolving fanner *a*, *a*, which when in motion draws a current through all the smoke passages, each of which makes an ascending zig-zag course, as represented at 14, 15, 16, 17, 18, and 19, in Figure 1, passing six times the length of the case, and there are 15

VERTICAL TRANSVERSE SECTIONS.

Figure 3.

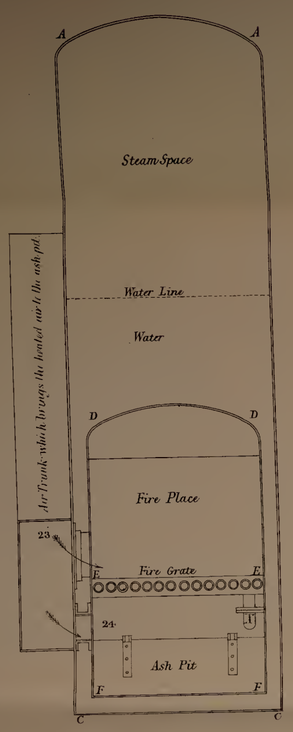


Figure 4.

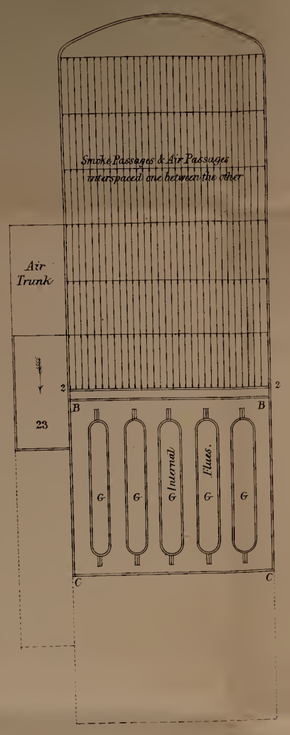


Figure 5.

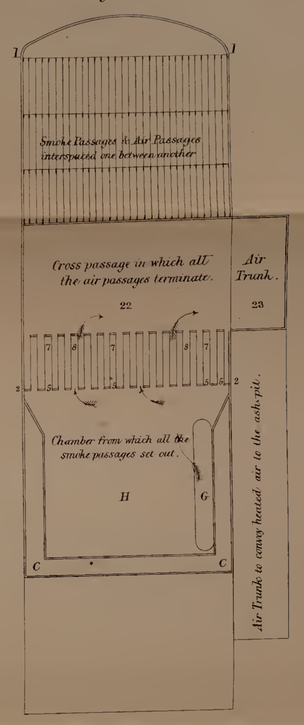


Figure 1. VERTICAL LONGITUDINAL SECTION.

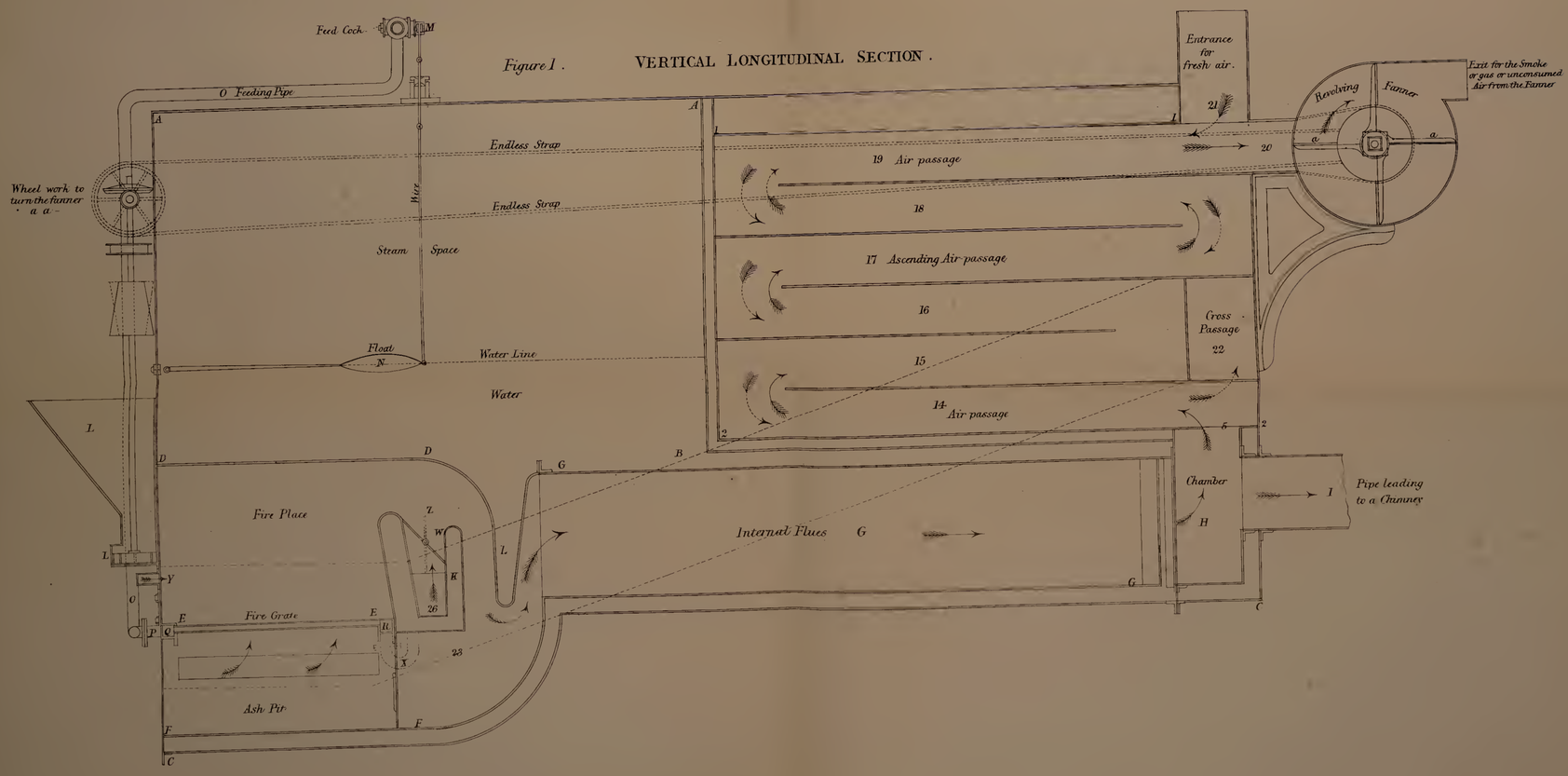
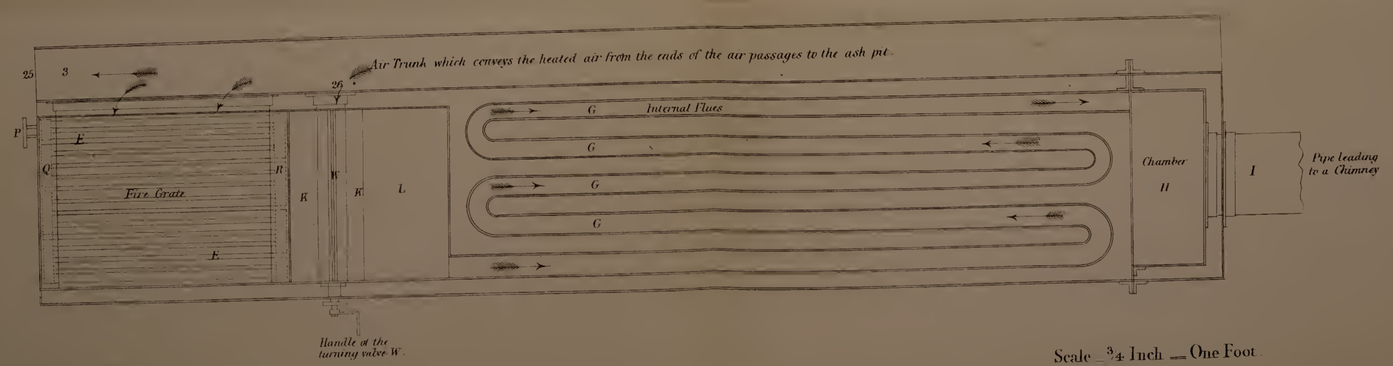


Figure 2. HORIZONTAL SECTION.



Scale $\frac{3}{4}$ Inch = One Foot
or $\frac{1}{16}$ the real size.

The Enrolled Drawing is partly Colored.

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FIGURE 9. *Sections of the Partition Plates betwen the air passages and the smoke passages.*

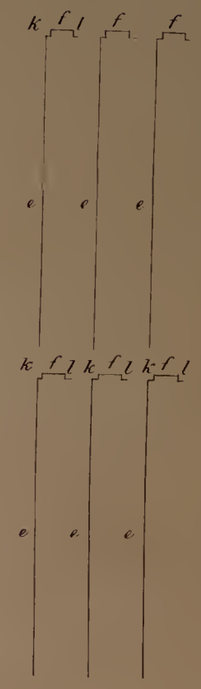


FIGURE 7. *Longitudinal Section of the Fire Grate.*

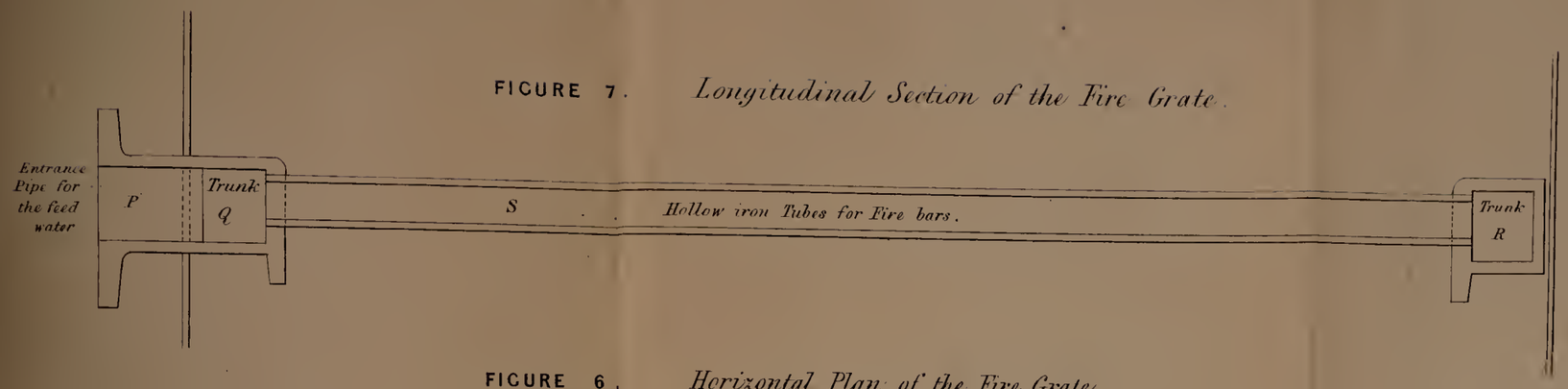


FIGURE 6. *Horizontal Plan of the Fire Grate.*

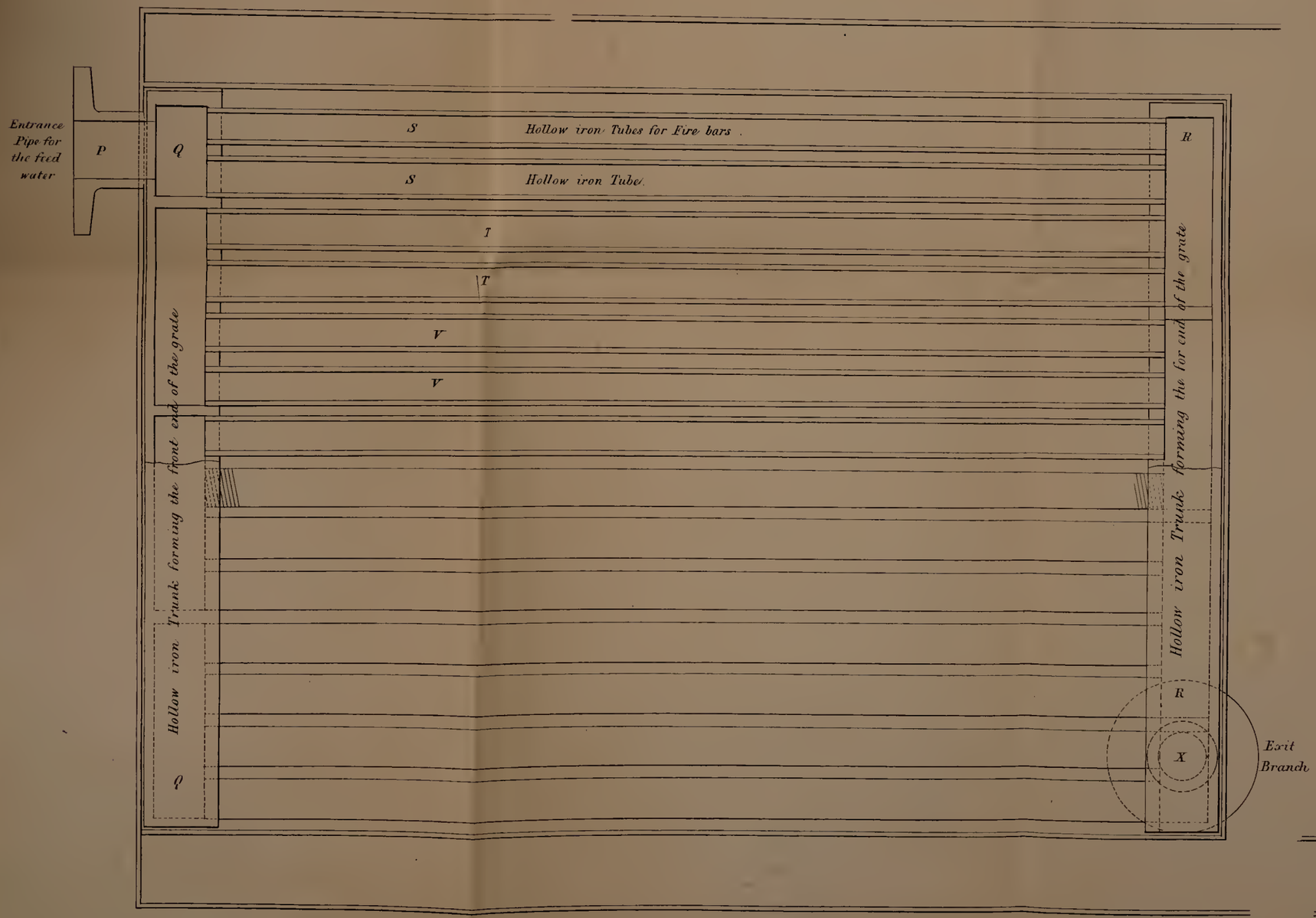
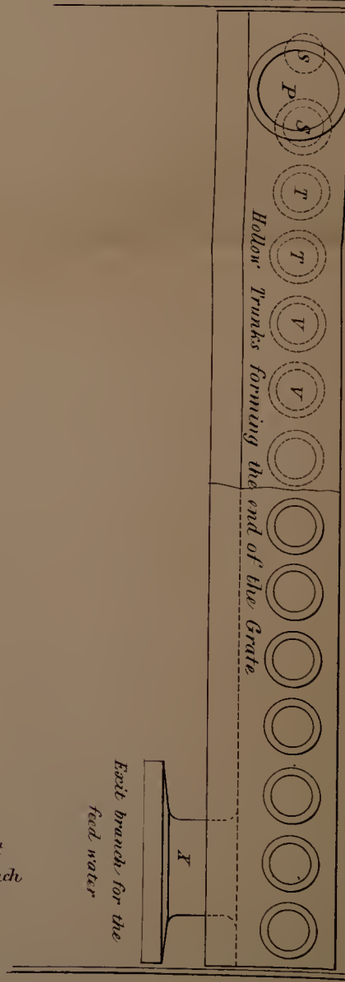


FIGURE 8. *Transverse Section of the Fire Grate.*



Scale 3 Inches = 1 Foot
or ¼ of the real size.

The enrolled drawing is partly colored.

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Printers to the Queens most Excellent Majesty 1854

such courses side by side in parallel vertical planes. The intermediate spaces between them are the air passages, which run in similar zig-zag courses, but reversed in direction; the common entrance to all the air passages being at 21. At the upper part of the farther end of the case they take in the air of the atmosphere at 21, and convey it by descending courses between the ascending courses of the smoke passages, until the air passages all open at their lowest and farthest ends into a passage 22, which extends horizontally across the width of the boiler; the openings into it are at the bottom side of it, as shewn in Figure 5, so that the heated air rises upwards into the cross passage 22, the end of which joins to a trunk 23, which extends along the side of the boiler in the descending direction, shewn by the dotted lines in Figure 1, and as is shewn in the plan, Figure 2, and transversely in Figures 3, 4, and 5. The end of the trunk 23 communicates with the ash pit by an opening 24, Figure 1 and Figure 3, to convey the heated or warmed air beneath the fire grate; and also the end of the trunk 23 communicates at 25, Figure 2, with the cross passage Y, Figure 1, which admits a portion of heated air into the furnace over the fire door, and there must be a register in the passage to adjust the eflux of air; and, lastly, the same air trunk 23 communicates at 26, Figure 2, with the air passage, which conveys another portion of heated air into the hollow fire bridge K, and the eflux of which air through the opening Z, at the top of the bridge, is regulated by the turning valve W.

In witness whereof, I, the said James Slater, have hereunto set my hand and seal, this Twenty-eighth day of September, One thousand eight hundred and thirty-one.

JAMES (L.S.) SLATER.

AND BE IT REMEMBERED, that on the Twenty-eighth day of September, in the second year of the reign of His Majesty King William the Fourth, the said James Slater came before our said Lord the King in His Chancery, and acknowledged the instrument aforesaid, and all and everything therein contained and specified, in form above written. And also the instrument aforesaid was stamped according to the tenor of the Statute made in the fifty-fifth year of the reign of His late Majesty King George the Third.

Inrolled the Thirtieth day of September, One thousand eight hundred and thirty-one.

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